



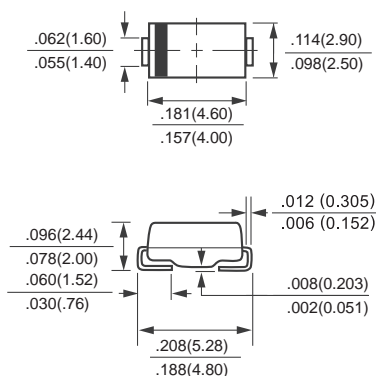
VOLTAGE RANGE - 20 to 80 Volts CURRENT - 1.0 Ampere

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: Solder plated solderable per MIL-STD-750, Method 2026
- * Polarity: As marked
- * Mounting position: Any
- * Weight: 0.064 gram

FEATURES

- * Ideal for surface mounted applications
- * Low leakage current
- * Glass passivated junction



SMA (DO-214AC)



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

PARAMETER		SYMBOL	SMA5817 SS12	SMA5818 SS13	SMA5819 SS14	SR150 SS15	SR160 SS16	SR170 SS18	UNITS
Maximum Recurrent Peak Reverse Voltage		V _{RRM}	20	30	40	50	60	80	Volts
Maximum RMS Bridge Input Voltage		V _{RMS}	14	21	28	35	42	56	Volts
Maximum DC Blocking Voltage		V _{DC}	20	30	40	50	60	80	Volts
Maximum Average Forward Rectified Current at Derating Lead Temperature		I _O	1.0						Amps
Peak Forward Surge Current: 8.3 ms single half sine-wave Superimposed on rated load (JEDEC Method)		I _{FSM}	30						Amps
Maximum Instantaneous Voltage at 1.0A DC		V _F	0.55		0.70		0.85		Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@T _A = 25°C	I _R	1.0						mAmps
	@T _A = 100°C		20						
Typical Junction Capacitance (Note 1)		C _J	110						pF
Typical Thermal Resistance (Note 2)		R θ _{JA}	88						°C/W
Operating and Storage Temperature Range		T _J ,T _{STG}	-65 to +125 , -65 to +150						°C

Notes: 1. Measured at 1 MHz and applied reverse voltage of 4.0volts.

2. Thermal Resistance from Junction to Ambient, $0.2 \times 0.2 \times (5.0 \times 5.0 \text{mm}^2)$ copper pad area.



FIG. 1 TYPICAL FORWARD CURRENT DERATING CURVE

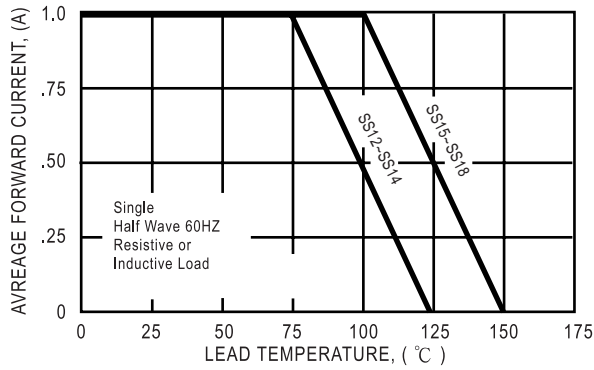


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

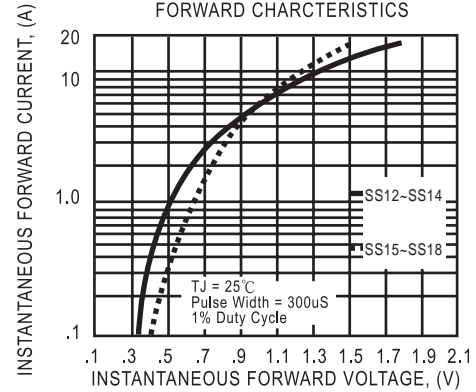


FIG. 3A - TYPICAL REVERSE CHARACTERISTICS

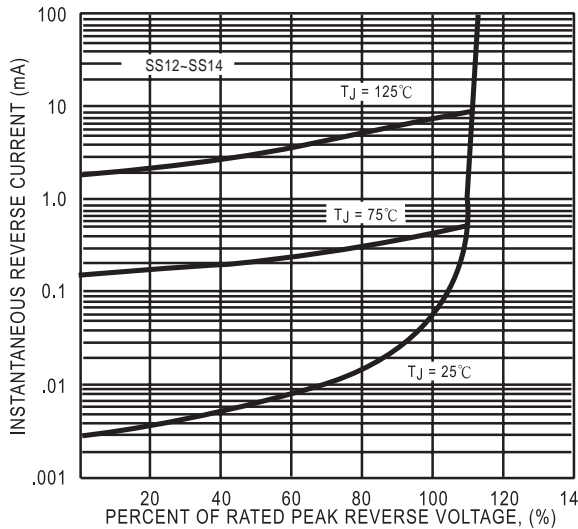


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

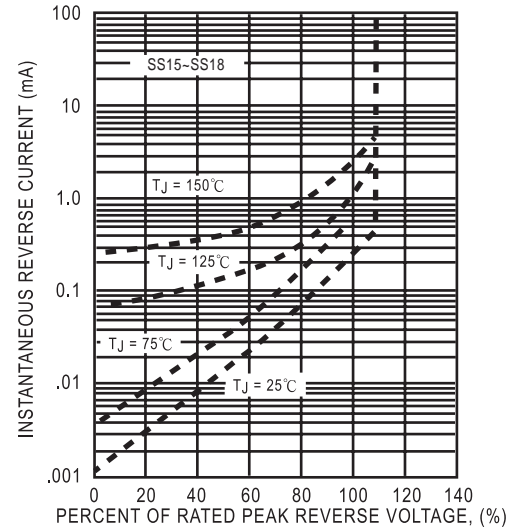


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

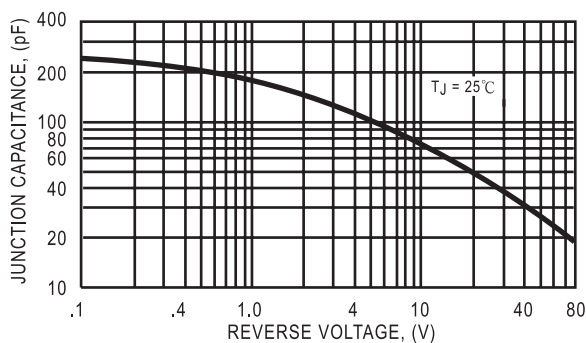


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

